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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,243	05/25/2001	Steve J. Mastrianni	YOR920010278US1	3959

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EXAMINER

CHANNAVAJALA, SRIRAMA T

ART UNIT	PAPER NUMBER
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2164

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,243

Applicant(s)

MASTRIANNI ET AL.

Examiner

Srirama Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

RESPONSE TO RCE

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/20/2004 has been entered and a non-final Office action as given below
2. Claims 1,3,17,22,24,38,40 have been amended [filed on 12/20/2004]
3. Examiner acknowledge applicant's amendment filed on 5/10/2004
4. Claims 1, 9-10,17,22,30-31,38,46-47,49-50,53 have been amended 5/10/2004.
5. Claims 1-53 are pending in this application.

Drawings

6. The drawings are approved by the Draftsperson under 37 CFR 1.84 or 1.152

Specification

7. The specification of the disclosure is objected to because at paper no. # 1, page 1, applicant cited two related patent applications without serial no. Applicant is hereby required to provide applications serial no.# and updated status in response to this office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-17,22-53 are rejected under 35 U.S.C. 102(a) as being anticipated by Howard et al., [hereafter Howard], US Patent No. 6185574.

9. As to Claims 1,17,22,38, Howard teaches a system which including 'data processing system for tracking relationships between programs and data' [col 8, line 41-49], Howard specifically teaches establishing relation between virtual directory system and application programs as detailed in col 8, line 41-59

'receiving a file access request from a program, wherein the file access request is for a file and is received at an operating system level and wherein the file is defined by a file name' [col 4, line 18-23, line 55-57, col 7, line 38-53], Howard specifically teaches relationship between hierarchical directory and operating system, further file attribute information especially file attribute information including file name, type of data for example text file, executable file, wordperfect file and like that corresponds to defining specific file type and name;

'creating an association between the file and the program requesting the file access in response to receiving the file access request' [col 7, line 61-67, col 8, line 1-5,

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line 13-15], Howard specifically suggests file information and relationships are stored in a database, further this database is configurable so that the directory can be manipulated into new configuration and can make files available at an operating system level that corresponds to creating an association between file and the program requesting the file as detailed in col 7, line 61-67, col 8, line 1-5;

'responsive to creating the association, storing the association between the file and the program, wherein the association is used for subsequent accesses to the file such that a stored association is stored for each file name for which file access is requested by the program' [col 11, line 10-26, fig 1], Howard specifically teaches virtual directory system having data files and association between files and operating system for accessing the specific file that are stored in virtual directory system as detailed in fig 1, col 11, line 10-25.

10. As to Claim 2, 23,39, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'association is stored as meta data' [col 13, line 10-17], Howard specifically suggests creating, accessing virtual directory system that including file attribute information related to file system entities that corresponds to association is stored as meta data.

11. As to Claim 3, 24,40, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'a program name for the program' [col 7, line 27-31], Howard specifically teaches virtual directory having file information presented to a computer operator, operating system, and application program as detailed in col 7, line 27-31.

12. As to Claim 4,25,41, most of the limitations of this claim have been noted in the rejection of Claim 3 above. In addition, with respect to the claimed feature Howard disclosed 'at least one of a location of the file, a time of file access, a data of file access, an extension for the file and an identification of a user of the program' [fig 20-21,42-56]..

13. As to Claim 5,26,42, most of the limitations of this claim have been noted in the rejection of Claim 4 above. In addition, with respect to the claimed feature Howard disclosed "location of the file is in a remote data processing system' [col 4, line 24-26, fig 2], Howard specifically teaches remote location of files are connected over the network for example network file system [element 7] and network storage [element 44] .

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14. As to Claim 6,27,43, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed "file request is one of a request to pen the file, close the file, copy the file, or delete the file' [col 16, line 16-21, col 19, line 4-8, line 11-17], Howard specifically teaches various file commands that including read, write, delete, file open and like as detailed in col 19, line 4-8, line 11-17.

15. As to Claim 7-8,28-29,44-45, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'a request to open the file originates from the first program and a request to close the file originates from a second program' [see fig 1, col 9, line 57-67], Howard specifically teaches application program with respect to mount media and file designation module related to virtual directory which is part of configuration IMP application program as detailed in fig 1, as best understood by the examiner, first program and second program corresponds to application program element 3, related to mount media, and file designation , and standard application or explorer at application level as detailed in fig 1.

16. As to Claim 9,30,46, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed "storing step are performed within an operating system kernel' [fig 2, especially kernel level], col 11, line 27-33], as best understood by the examiner

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computer system includes operating system that is located in the kernel, further kernel automatically loads into the memory, and kernel remains resident in the memory and is common knowledge in the art.

17. As to Claim 10-11,31-32,47-48, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'storing step are performed within a device driver' [col 13, line 29-41], Howard specifically teaches detecting device drives for example if the desired ZIP drive is not connected, user is notified or error message commands appropriately notify users so that required media is installed as detailed in col 13, line 29-41, as best understood by the examiner device driver is simply called a driver which is computer program that is intended to allow another program typically, an operating system to interact with a hardware device such as detailed in fig 1, further Drivers are used for interfacing with differernt file system, hard disk drives, ZIP,TAPE and like [see fig 1], in case of operating systems like Windows 95, [see col 9, line 41, line 66,], DOS [col 21, line 42-43] most of the devices in a windows operating system are accessed through device nodes, also called special files they are typically located under the directory /dev in the file system hierarchy.

18. As to Claim 12, 33,49, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'storing the association between the file and the program in a database' [see fig 16, col 21, line 9-26, also see fig 23], Howard specifically teaches virtual directory system is being utilized using relational database that establishes association between various files and program in the database as detailed in col 21, line 9-26.

19. As to Claim 13, 34,50, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'receiving a request from a requestor to access the associations' [col 22, line 15-18], Howard specifically teaches directory path to access specific file as detailed in col 22, line 15-18; 'querying the database for the associations' [col 22, line 36-42], Howard specifically teaches query sequence of hierarchical directory related to file system ; 'receiving a result from the database' [col 22, line 50-52], Howard specifically teaches displaying all files in the virtual directory database; 'returning the result returned from the database to the requestor' [col 22, line 50-59].

20. As to Claim 14,35,51, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'associations are for a particular program' [col 22, line 60-67, col 23, line 1-2]

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21. As to Claim 15, 36,52, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'associations are for a particular file'[col 23, line 65-67, col 24, line 1-2].

22. As to Claim 16, 37,53, most of the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, with respect to the claimed feature Howard disclosed 'storing the association between the file and the program in at least one of a registry, file, and a file system' [col 23, line 22-24], Howard specifically teaches directory information from the native file directory can be stored on a database of the virtual file directory as detailed in col 23, line 22-24, it is also noted that Howard specifically teaches Windows95, DOS and WindowsNT operating system [see fig 3], col 10, line 52, further as best understood by the examiner "Registry" is an integral part of operating systems such as Windows95, WindowsNT and ,MS-DOS because registry is the centralized configuration database for operating system as well as for applications, further the registry stores information about tuning parameters, kernel executing configuration, device configuration and user preferences, therefore, registry is integral part of operating systems and active component.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

24. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howard et al., [hereafter Howard], US Patent NO. 6185574.

25. As to Claim 18-19, Howard does not disclosed "bus system is a single bus", although Howard does teach various components related to virtual directory system have been connected as detailed in fig 1. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant invention to use bus system because computer processor, memory and other components connecting through bus

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system with other network file system module, network storage devices [I/O] would have bi-directional access to other information through commands, it is further noted that bus system is integral part of any typical PC or personal computer [see at col 7, line 36], also Windows95 is an operating system typically installed on any personal computer.

26. As to Claim 20, most of the limitations of this claim have been noted in the rejection of Claim 17 above. In addition, with respect to the claimed feature Howard disclosed 'including processing unit includes a plurality of processors' [fig 2, element 7], Howard specifically teaches network file system.

27. As to Claim 21, most of the limitations of this claim have been noted in the rejection of Claim 17 above. In addition, with respect to the claimed feature Howard does not disclosed 'communications unit is one of a modem and Ethernet adapter' although, Howard specifically suggests network filesystem connected to network storage as detailed in fig 2. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to include modem, Ethernet adapter and any network related components because that would have allowed Howard users not only update file system, but also allows to transfer required file information bringing the advantages of greater flexibility

Response to Arguments

28. Applicant's REMARKS at page 10-12, with respect to claims 1-53, also response to final office action filed on 18 october,2004, page 11-16 have been considered but are moot in view of the new ground(s) of rejection as detailed above.

Conclusion

The prior art made of record

a. US Patent No. 6185574

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

b. Jim Christensen et al. "Accessing remote filesystems as autonomous information surces", published: March, 2000, 4 pages

c. Hui Lei et al. "an analytical approach to file prefectching",USENIX annual technical conference, 1997, 14 pages


d. Mutka,M.W et al. "managing personal files across independent file management units", distributed computing systems, proceeding third workshop on future trends 1April 992, pp 254-261.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popvici, can be reached on 571-272-4083. The fax phone numbers for the organization where the application or proceeding is assigned is 703/872-9306

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

SC
Patent Examiner.
February 15, 2005.


SRIRAMA CHANNAVAJJALA
PRIMARY EXAMINER